

**IMPLEMENTATION OF DOE-0344,  
EXCAVATING, TRENCHING, AND  
SHORING****Manual  
Document  
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TFC-ESHQ-S-STD-30, REV B  
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May 24, 2011**[Ownership matrix](#)[Click for copy of Word \(native\) file](#)**1.0 PURPOSE AND SCOPE**  
(5.1.1)

This Standard describes the Tank Operations Contractor (TOC) organizational roles and responsibilities for implementing DOE-0344, Hanford Site Excavating, Trenching and Shoring. Procedure DOE-0344 provides the requirements for all Hanford Site excavation, trenching and shoring activities. In addition, this Standard provides specific methods for implementing portions of DOE-0344. As such, this standard supplements but does not replace or supersede DOE-0344.

**2.0 IMPLEMENTATION**

This standard is effective on the date shown in the header.

**3.0 STANDARD****3.1 Roles and Responsibilities**

This section provides an overview of roles and responsibilities in the implementation of DOE-0344. Prior to conducting excavation activities, all requirements applicable to the scope of work as described in DOE-0344 shall be reviewed to ensure that appropriate requirements are implemented.

**3.1.1 Work Control Program Manager**

The Work Control Program Manager is responsible for the following:

- Appoints a WRPS Company Excavation Coordinator to assist excavation permit originators with the permit process and ensure excavation permit consistency.
- Ensures that cultural/ecological resources and associated values are protected during the permitting of excavations.

**3.1.2 Company Excavation Coordinator**

The Company Excavation Coordinator performs the following duties:

- Works with the permit originator to find the appropriate information and contacts to assemble the excavation permit (see Figure 1) and provide information related to the permit process
- Ensures that the appropriate site, building, or waste site owners of known or suspected underground interferences (structures and utilities) are properly identified and contacted. Verifies ownership with appropriate site utilities or manager of nearby facilities
- Ensures inclusion of Waste Information Data System (WIDS) or other relevant and current data sources, and permit reviewers' special instructions

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- Returns assembled draft permit to Permit Originator for final comments and signatures (usually WRPS Engineering, Facility Owner and Responsible Manager)
- Ensures all pages of the completed permit have pagination and all figures and maps are numbered, labeled, and referenced in the description of work or special instructions
- Ensures the excavation permit procedure has been followed and the permit is complete
- Enters the “Latest Start Date,” i.e., no more than 90 calendar days from the date of the last signature, in the upper right corner of the Hanford Site Excavation Permit (A-7400-373, see Figure 1)
- Supplies copies (preferably electronic) of issued excavation permits to the Hanford Site Coordinator periodically.
- Retains an information copy of completed WRPS excavation permits for tracking purposes and to ensure consistency in the permitting process.

### **3.1.3 Permit Originator/Planner**

The Permit Originator/Planner performs the following duties:

- Contacts the Company Excavation Coordinator to determine if an excavation permit is required and what information is needed to initiate and eventually complete the excavation permit.
- Ensures that after the permit is initiated, the remaining information needed to complete the permit is supplied promptly:
  - Known facilities, services, utilities, groundwater wells and WIDS sites in the near proximity of the excavation; accurate drawings; and/or maps
  - NEPA review is initiated, including ecological and/or cultural resources review request
  - Environmental Representative is consulted to evaluate Environmental impacts
  - Proofreading of the draft permit for review
  - Geophysical investigation request
  - Walkdown documentation
  - Work package number and changes in dates, boundaries, work description, and/or personnel
- Ensures that a job hazard analysis of the excavation work scope and all associated activities is in development.

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- Ensures the excavation permit procedure has been followed and the permit is complete
- If the “Latest Start Date” is exceeded or there is another period of inactivity exceeding 90 days, then the permit originator (or other person designated by the Responsible Manager) must ensure the permit is reapproved by the Facility Owner, at a minimum.

#### **3.1.4 Permit Reviewers**

Individuals identified to review will conduct their review per DOE-0344, Section 5.3.4, Actions j.-p.

#### **3.1.5 Radiological Control**

Radiological Control performs the following duties:

- Reviews all proposed WRPS excavations to evaluate the radiological conditions and the need for radiological controls during excavation activities
- Checks WIDS data for nearby sites and note precautions.

#### **3.1.6 Competent Persons for Excavations**

A Competent Person shall be assigned when an excavation activity is 4 feet or greater in depth. If conditions warrant, Competent Person involvement may be assigned at depths less than 4 feet.

Competent Persons will perform the following duties:

- Complete the Training Completion Record, WRPS Competent Person-Excavation, A-6005-804, in accordance with TFC-ESHQ-S-STD-29.
- Conduct documented inspections of excavations each day of work, prior to entry. Maintains inspection log.
- Determine whether the proposed excavation requires a design/approval by a registered professional engineer (i.e., excavation depth is expected to exceed 20 ft). If applicable, a stamped copy of the excavation design must be approved and a copy must be included in the work record.

#### **3.1.7 Registered Professional Engineer**

The Registered Professional Engineer performs the following duties:

- Provides stamped and sealed design for excavations, when required. The engineer shall determine protective measures to prevent collapse of excavations, i.e., sloping, design of portable trench boxes and shields, or shoring.
- Ensures the stability of adjoining buildings, vehicle crossings of trenches, walls or other structures which may be affected by the excavation.

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### **3.1.8 Facility Owner**

The Facility Owner performs the following duties:

- Performs the final review and concurrence for the Hanford Site Excavation Permit in signature block 23, ensuring that the permit has been completed satisfactorily and that safe work is achievable. If the Facility Owner does not represent WRPS, then the WRPS Responsible Manager provides final review and concurrence.
- If the “Latest Start Date” is exceeded or there is any 90-day period with no excavation activity, verifies whether there may have been configuration changes. If the Facility Owner has maintained configuration control and concurs, he/she re-signs and re-dates block 23. If not, the subject matter experts of the affected utilities, and the Facility Owner and Responsible Manager must review the permit again before work resumes. Note exemption for projects that extend beyond 12 months (DOE-0344).

### **3.1.9 Responsible Manager**

The Responsible Manager performs the following duties:

- Ensures the subject matter experts have approved the excavation permit.
- Reviews and concurs for the Hanford Site Excavation Permit in signature block 25.
- Designates the person or people who will be the planning team, permit originator walkdown organizer, and monitor for (1) the 90-day inactivity limit and (2) time to renew the annual reviews for ecological concerns and of the excavation permit.
- Ensures utility demarcation lines are clearly visible before releasing the excavation work.
- Ensures that a competent person has been assigned to the excavation activity, as applicable.

### **3.1.10 Project Engineer**

The Project Engineer reviews the excavation permit and signed block 10 in the capacity of “design authority/technical representative.”

### **3.1.11 Safety Professional**

The Safety Professional is responsible for staying cognizant of excavation activities in assigned areas by providing oversight to ensure compliance with DOE-0344.

### 3.1.12 Environmental Representative

The Environmental Representative performs the following duties:

- Coordinates NEPA review per DOE-0344, Section 5.2.a, including Cultural/and/or Ecological Review as appropriate
- Reviews Form, as described in DOE-0344, Section 5.2.b, for environmental impacts and applicable requirements
- Signs EP Approval per block 11 in the capacity of “environmental representative.”

### 3.2 Procedure

DOE-0344, Hanford Site Excavating, Trenching and Shoring, is available at the following location: [http://www.hanford.gov/files.cfm/DOE-0344\\_Rev2.pdf](http://www.hanford.gov/files.cfm/DOE-0344_Rev2.pdf).

The following are clarifications and a crosswalk of position title differences between the DOE procedure and WRPS organization structure; it is intended to aid in ensuring that no confusion exists regarding who within WRPS is responsible for various excavation related activities.

<b>Activity/Step</b>	<b>DOE-0344 Actionee</b>	<b>WRPS Actionee</b>
5.1a	Responsible Person	Shift Manager
5.1b	Facility/System Owner	Shift Manager
5.1.c	Facility/System Owner	Shift Manager
5.1.d	Responsible Person	Shift Manager
5.1e	Responsible Person	Shift Manager
5.1f	Responsible Person	Shift Manager
5.1.g	Facility/System Owner	Shift Manager
5.1.h	Responsible Person	Shift Manager
5.1.i	Facility/System Owner	Field Work Supervisor
5.1.j	Facility/System Owner	Engineer
5.2.a	Responsible Person	Project Manager or Operations Manager
5.2.b	Responsible Person	Planner
5.2.c	Responsible Person	Planner
5.2.d	Responsible Person	Planner
5.2.e	Responsible Person	Planner
5.2.f	Responsible Person	Planner
5.2.h	Responsible Person	Planner
5.3.2	Facility/System Owner, or Technical Representative	Facility Manager
5.3.3.a	Company Excavation Coordinator	Company Excavation Coordinator

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Activity/Step	DOE-0344 Actionee	WRPS Actionee
5.3.3.b	Company Excavation Coordinator	Company Excavation Coordinator
5.3.3.c	Company Excavation Coordinator	Company Excavation Coordinator
5.3.3.d	Permit Originator/Responsible Person	Planner
5.3.3.e	Permit Originator/Responsible Person	Planner/System Engineer
5.3.3.f	Site Excavation Coordinator	Not WRPS Function
5.3.4.a	Responsible Person	Planner
5.3.4.b	Responsible Person	Engineer
5.3.4.c	Responsible Person	Planner
5.3.4.d	Responsible Person	Planner
5.3.4.e	Responsible Person	Planner
5.3.4.f	Responsible Person	Planner
5.3.4.g	Responsible Person	Planner
5.3.4.h	Responsible Person	Planner
5.3.4.i	Responsible Person	Planner
5.3.4.j	Permit Reviewers	Engineer
5.3.4.k	Permit Reviewers	Engineer
5.3.4.l	Permit Reviewers	Engineer
5.3.4.m	Permit Reviewers	Engineer
5.3.4.n	Permit Reviewers	Permit Reviewers
5.3.4.o	Permit Reviewers	Engineer
5.3.4.p	Permit Reviewers	Engineer
5.3.4.q	Permit Originator/Responsible Person	Planner
5.3.4.r	Permit Originator/Responsible Person	Area/Project Manager
5.3.4.s	Facility/System Owner or Responsible Person	Area Manager
5.3.4.t	Responsible Manager	Area Manager
5.3.4.u	Responsible Person	Company Excavation Coordinator
5.3.4.v	Responsible Person	Planner
5.4.1, a-b	Responsible Person	Field Work Supervisor
5.4.1.c	Responsible Person	Field Work Supervisor
5.4.1.d	Responsible Person	Field Work Supervisor
5.4.1.e	Responsible Person	Field Work Supervisor
5.4.1.f	Responsible Person	Field Work Supervisor

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Activity/Step	DOE-0344 Actionee	WRPS Actionee
5.4.2.a-d	Facility Owner or Responsible Manager	OE/Shift Manager
5.4.3.a-d	Responsible Person	Field Work Supervisor
5.4.3.e-h	Competent Person	Competent Person
5.4.3.i-j	Responsible Person	Field Work Supervisor/ Planner
5.4.3.k-t	Responsible Person	Field Work Supervisor
5.4.3.u	Equipment Operator	Equipment Operator
5.4.4.a-f	TR	Field Work Supervisor
5.4.4.g	Permit Reviewers or Facility/System Owner	Engineer
5.4.4.h	Site Excavation Coordinator	Not a WRPS function

**3.3 Records**

The following records will be generated during the performance of this standard: (in conjunction with DOE-0344) and are maintained within the Work Package:

- Hanford Site Excavation Permit (A-7400-373)
- Geophysical Evaluation (A-7400-373)
- TOC NEPA Screening Form (A-6003-114)
- Environmental Activity Screening form (A-6003-727) or equivalent
- Daily Excavation/Trenches Safety Inspection Log (A-6001-937)
- Cultural and/or Ecological Resource Review (RL-665).

The record custodian identified in the Company Level Records Inventory and Disposition Schedule (RIDS) is responsible for record retention in accordance with TFC-BSM-IRM\_DC-C-02.

**4.0 DEFINITIONS**

Terminology used in this procedure is defined in DOE-0344, Appendix B.

**5.0 SOURCES****5.1 REQUIREMENTS**

1. RPP-13033, "Tank Farms Documented Safety Analysis."

## **5.2 REFERENCES**

1. DOE-0344, "Hanford Site Excavating, Trenching and Shoring Procedure," current revision, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
2. TFC-BSM-IRM\_DC-C-02, "Records Management."
3. TFC-ESHQ-S-STD-29, "Qualified/Competent Persons."
4. TFC-OPS-MAINT-C-01, "Tank Operations Contractor Work Control."
5. TFC-OPS-MAINT-C-02, "Pre-Job Briefings and Post-Job Reviews."
6. TFC-PLN-100, "Tank Operations Contractor Requirements Basis Document."
7. Training Completion Record, WRPS Competent Person-Excavation, A-6005-804.



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**Figure 1. Hanford Site Excavation Permit (Example).**

<b>HANFORD SITE EXCAVATION PERMIT</b> <b>NOTE: Use Formal Operations Work Release to Control Work</b>			EXCAVATION PERMIT NO.	
			LAST PERMITTED START DATE	
1. Work Package No.	2. W.O./Project No.	3. Location of Excavation		
4. Originated By/Phone		Date	5. Change Notice (ECN, DCN or FMP) Number.	
6. Drawings, Plans/Procedures Required (Identification Numbers)				
7. Description of Work (Attach composite drawing of excavation location and all known interferences)				
8. Special Instructions and Comments (Notify Site Utilities and call the CALL BEFORE YOU DIG (1-800-424-5656) at least 2 business days prior to digging. Walk down the excavation site and verify that scan marks are still visible - if not, call scanning organization to refresh marks. When anything unusual or unexpected is identified in an excavation, STOP until the discovery can be properly evaluated. Also refer to any company-specific safety procedures.)				
9. List Facilities, Services, Utilities, and Groundwater Wells Affected by Excavation				
REVIEW/CONCURRENCE: Insure Permit is Completed Acceptably and Safe Work Conditions are Achievable				
10. Design Authority / Technical Representative		Date	16. Traffic Engineer	
11. Environmental		Date	18. Road and Track Maintenance	
12. Radiological Control		Date	20. Safeguards and Security	
13. Steam System		Date	21. Land Use Planning/500 Area Landlord	
14a. Electrical Utilities (Transmission/Distribution)		Date	22. Sanitary Sewer	
14b. Facility Electrical Systems (Secondary)		Date	23. Facility/System Owner(s)	
15. Water Utilities		Date	24. Other	
16. Telecommunications		Date	25. Responsible Manager	
17. Transfer Lines & Process Sewer		Date	26. U-Dig Ticket # _____	
Contact any affected parties (such as U-Dig) at least two days prior to start of excavation.				